UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,690	09/22/2003	Andrew Doddington	14846-15	9387

7590   12/28/2007

MICHAEL B. JOHANNESEN, ESQ.
LOWENSTEIN SANDLER, P.C.
65 LIVINGSTON AVENUE
ROSELAND, NJ 07068

EXAMINER
LOVEL, KIMBERLY M

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *30 August 2007*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-17* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-17 are rejected.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30

August 2007 has been entered.

Claim Rejections - 35 USC § 112

3.   The rejections of **claims 1 and 11** under 35 U.S.C. 112, first paragraph, as failing

to comply with the written description requirement are withdrawn as necessitated by the

amendments to the claims.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4.   **Claims 11-16** are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

Claim 11 is directed towards an apparatus. However, the apparatus comprises a

data set, a presentation layer and a business layer, which can be interpreted as

comprising entirely of software per se according to one of ordinary skill in the art. The

claim language fails to provide the necessary hardware required for the claim to fall

within the statutory category of an apparatus.

According to MPEP 2106:

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material per se.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See Diehr, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

Since claims 12-16 are dependent on claim 11, the claims are rejected on the

same grounds as claim 11.

To allow for compact prosecution, the examiner will apply prior art to these

claims as best understood, with the assumption that applicant will amend to overcome

the stated 101 rejections.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   **Claims 1-16 rejected under 35 U.S.C. 102(e) as being anticipated by US**

PGPub 2006/0059107 to Elmore et al (hereafter Elmore).

Referring to claim 1, Elmore discloses a method for presenting data and

functions to a user via a presentation layer [presentation layer 103], for use in a

distributed processing system to effect an interface between a business layer [Business

layer 101] and the presentation layer, the method comprising the steps of:

defining a data set structure which implements an abstract interface for use in

both the business layer and the presentation layer, said data set structure comprising

hierarchical organizational information for arranging one of data and functions [objects]

into at least one tree structure [hierarchy], the tree structure being navigable without

regard to the type of data or function being processed (see [0094]; [0514]-[0516]; and

Fig 18);

populating a business layer data set in said business layer [business layer 101]

according to said data set structure, said business layer data set comprising data and

functions available for use in said business layer (see [0036]); and

populating a presentation layer data set in said presentation layer [presentation

layer 103] according to said data set structure from said business layer data set, said

presentation layer data set comprising data and functions available for use by the user

in said presentation layer (see [0038]).

Referring to claim 2, Elmore discloses a method in accordance with claim 1

wherein defining a data set structure comprises defining a plurality of items comprising

a plurality of data items and a plurality of function items (see Fig 18).

Referring to claim 3, Elmore discloses a method in accordance with claim 2

wherein defining a plurality of data items comprises defining a data value for each of

said plurality of data items (see [0052]).

Referring to claim 9, Elmore discloses a method in accordance with claim 2

wherein defining a plurality of function items comprises defining a function for each of

said plurality of function items (see [0059]).

Referring to claim 10, Elmore discloses a method in accordance with claim 2

wherein defining a plurality of function items comprises defining a function set for each

of said plurality of function items (see [0039]).

Referring to claim 11, Elmore discloses an apparatus for use in a distributed data processing system comprising:

a data set structure which implements an abstract interface for storing available data and identification of function calls [objects], one of said data and function calls being arranged in at least one tree structure [hierarchy], the tree structure being navigable without regard to the type of data or function being processed (see [0094]; [0514]-[0516] and Fig 18);

a presentation layer [presentation layer 103] configured to store data and identification of function calls that are available for use by a user in accordance with said data set (see [0038]); and

a business layer [business layer 101] configured to store data and identification of function calls that are available for use by a user in accordance with said data set (see [0036]).

Referring to claim 12, Elmore discloses an apparatus in accordance with claim 11 wherein said presentation layer is further configured to request data and identification of function calls from said business layer and to store said data and identification of function calls in accordance with said data set so that data and identification of function calls of said business layer can be available to said presentation layer (see [0036]-[0039]).

Referring to claim 13, Elmore discloses an apparatus in accordance with claim 12 wherein said business layer comprises a plurality of processors wherein each of said processors is configured to store data and identification of function calls that are

available for use by said presentation layer in accordance with said data set wherein

each of said processors provides unique data and identification of function calls to said

presentation layer (see [0036]-[0039]).

Referring to claim 14, Elmore discloses an apparatus in accordance with claim

13 wherein business layer function calls are available to said presentation layer for

execution at said presentation layer via said data set (see [0036]-[0039]).

Referring to claim 15, Elmore discloses an apparatus in accordance with claim

13 wherein business layer function calls are available to said presentation layer for

execution at said business layer via said data set (see [0036]-[0039]).

Referring to claim 16, Elmore discloses an apparatus in accordance with claim

13 wherein business layer function calls are available at said presentation layer for

execution at both said presentation layer and at said business layer via said data set

(see [0036]-[0039]).

Referring to claim 17, Elmore discloses a method for presenting data and

functions to a user via a presentation layer [presentation layer 103], for use in a

distributed processing system to effect an interface between a business layer [Business

layer 101] and the presentation layer, the method comprising the steps of:

defining a data set structure which implements an abstract interface for use in

both the business layer and the presentation layer, said data set structure comprising

hierarchical organizational information for arranging one of data and functions [objects]

into at least one tree structure [hierarchy], the tree structure being navigable without

regard to the type of data or function being processed (see [0094]; [0514]-[0516]; and

Fig 18);

        populating a business layer data set in said business layer [business layer 101]

according to said data set structure, said business layer data set comprising data and

functions available for use in said business layer (see [0036]); and

        populating a presentation layer data set in said presentation layer [presentation

layer 103] according to said data set structure from said business layer data set, said

presentation layer data set comprising data and functions available for use by the user

in said presentation layer (see [0038]).

Claim Rejections - 35 USC § 103

        The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   **Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

US PGPub 2006/0059107 to Elmore et al as applied to claim 2 above, and further

in view of US PGPub 2004/0230559 to Newman et al (hereafter Newman).

        Referring to claim 4, while Elmore discloses domain objects (see [0052]),

Elmore fails to explicitly disclose the further limitation of wherein defining a plurality of

data items comprises defining a domain for each of said plurality of data items, the

domain corresponding to the data type of a data item. Newman discloses multi-layer

architecture (see abstract), including the further limitation wherein defining a plurality of data items comprises defining a domain for each of said plurality of data items, the domain corresponding to the data type of a data item (see [0122]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the concept of a domain disclosed by Newman to define the domain of Elmore. One would have been motivated to do so in order to clearly define the type of data a field can process.

Referring to claim 5, the combination of Elmore and Newman (hereafter Elmore/Newman) discloses a method in accordance with claim 4 wherein defining a domain for each of said data items comprises defining a domain home for each of said plurality of data items, the domain home being a means of locating a domain (Newman: see [0026]).

Referring to claim 6, Elmore/Newman discloses a method in accordance with claim 4 wherein defining a domain [for each of said data items comprises defining a context for each of said plurality of data items, the context providing means of distinguishing between otherwise identical domains (Newman: see [0141]).

Referring to claim 7, Elmore/Newman discloses a method in accordance with claim 4 wherein defining a domain for each of said data items comprises defining a range domain for each of said plurality of data items, the range domain corresponding to those domains that have a continuous range of values, bound by an upper and lower limit [lists of acceptable values] (Newman: see [0024]).

Referring to claim 8, Elmore/Newman discloses a method in accordance with claim 4 wherein defining a domain for each of said plurality of data items comprises defining a discrete domain for each of said plurality of data items, the discrete domain corresponding to those domains that have an explicit list of permitted values [set of rules at the attribute level] (Newman: see [0025]).

Response to Arguments

7.   Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Lovel whose telephone number is (571) 272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimberly Lovel
Examiner
Art Unit 2167

20 December 2000
kml
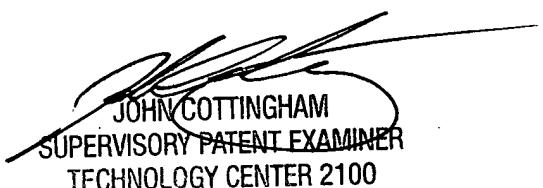
JOHN COTTINGHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100